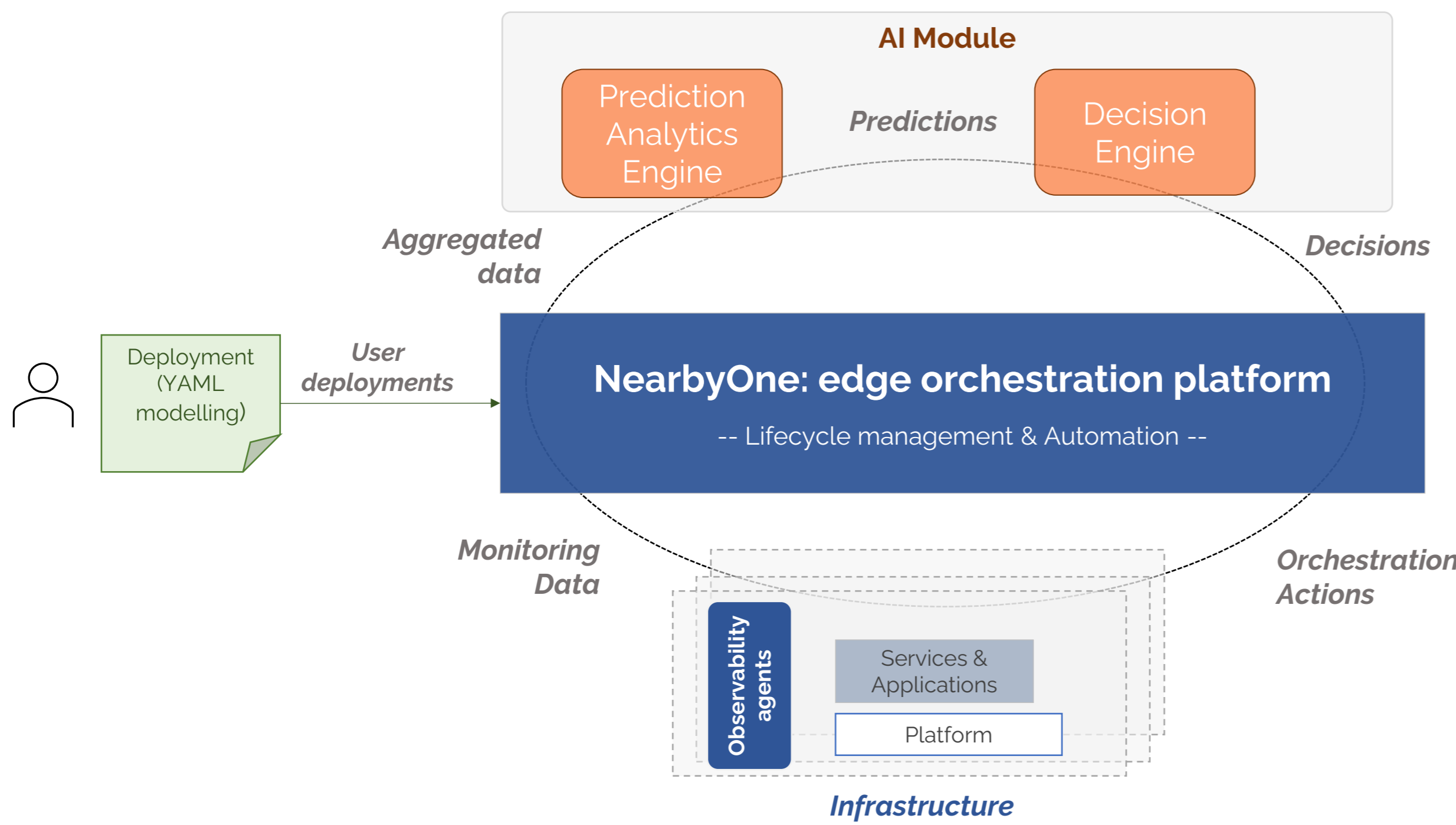


- **Nearby Computing** delivers Edge Computing end-to-end management and automation solutions through its own orchestration platform **NearbyOne**.
- Service providers and enterprises can leverage **NearbyOne** to manage their daily edge or distributed computing operations and enable disruptive use cases to be deployed across any organization.
- **NearbyOne** has proven to be the most complete, versatile and best-performing edge automation platform in the market.

Closed-Loop Orchestration



Solutions

- Automated Resource Management
- Real-time Monitoring and Alerts
- End-to-End ML Lifecycle Management
- Standardized API Development
- Scalable AI/ML Inference
- Unified Data Pipeline

Underlying open-source technologies

- Resource orchestration: Kubernetes
- Observability tools: Prometheus, Grafana, Thanos
- AI/ML tools: MLflow, Kubeflow, MLServer, SeldonCore
- 5G Networks: Open5Gs, Free5Gc, UERANSIM
- API Development: OpenAPI Specification with Swagger

SNS Research Projects



Zero-touch Orchestration in ITNTN

- ETSI compliant closed-loop orchestration framework
- ML Analytics engine for inference
- Decision Engine for orchestration actions
- Global application and Infrastructure metrics visibility



AI-driven Multi-edge Service Orchestration

- Cloud-native workload forecasting
- Attention mechanism models (informers)
- Inference time & generalization capabilities
- Service management across multiple edge locations.

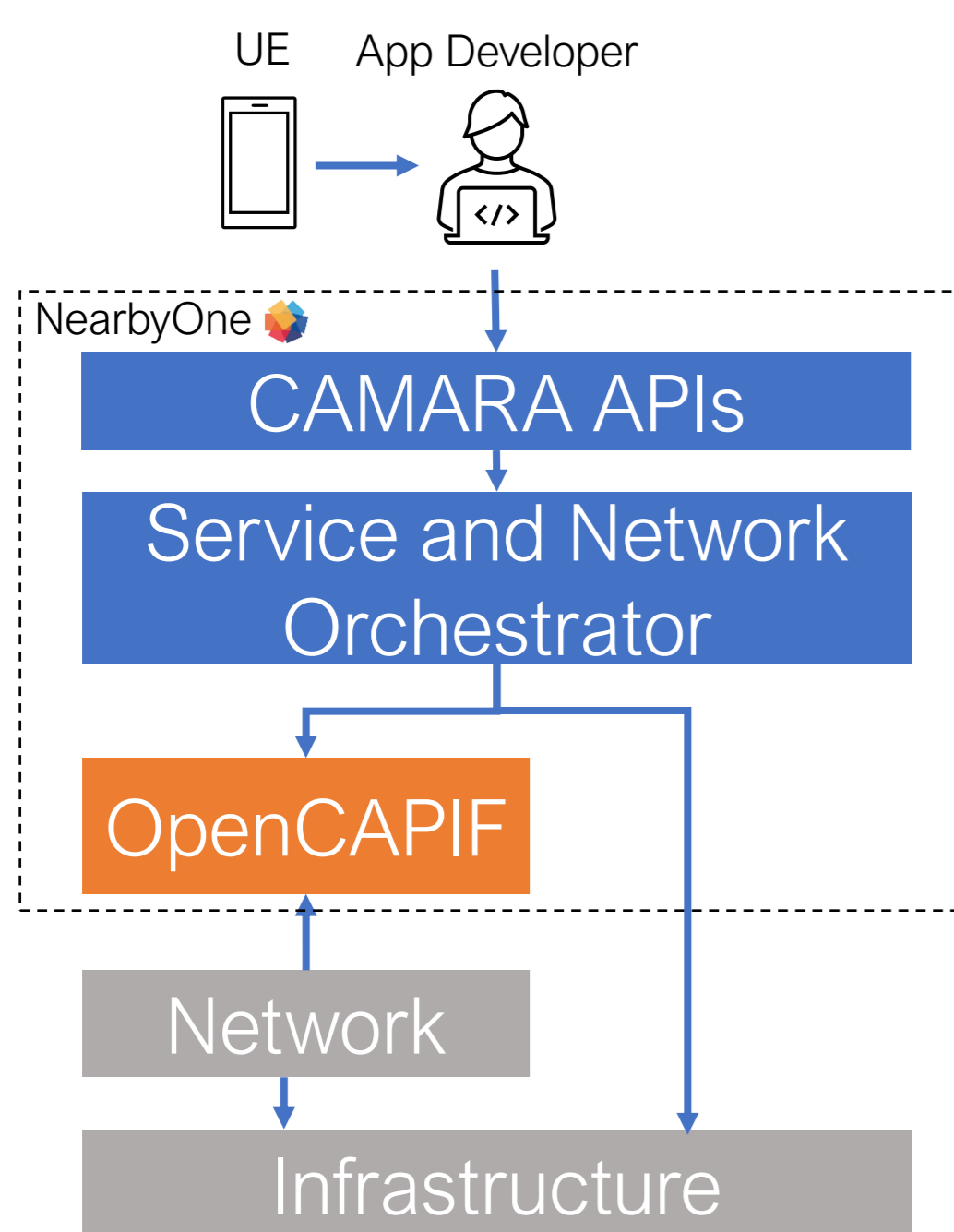
3rd Party Integration



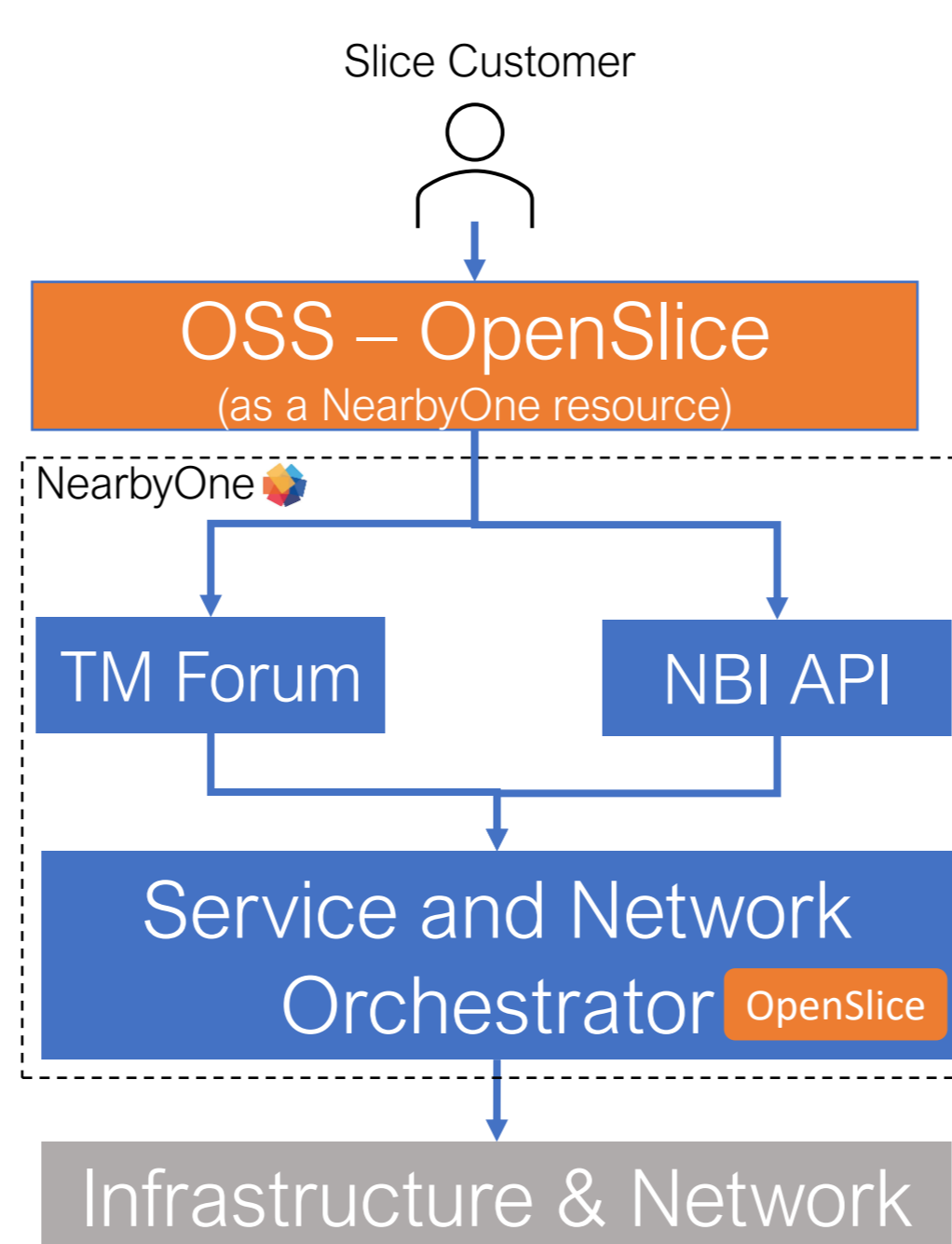
Northbound Interface API

- Integrate via the NBI API (OpenAPI specification)
- Deploy and manage services across the edge-cloud continuum.
- Ensure robust and scalable service operations

Relation with ETSI SNS4SNS Standardization Frameworks

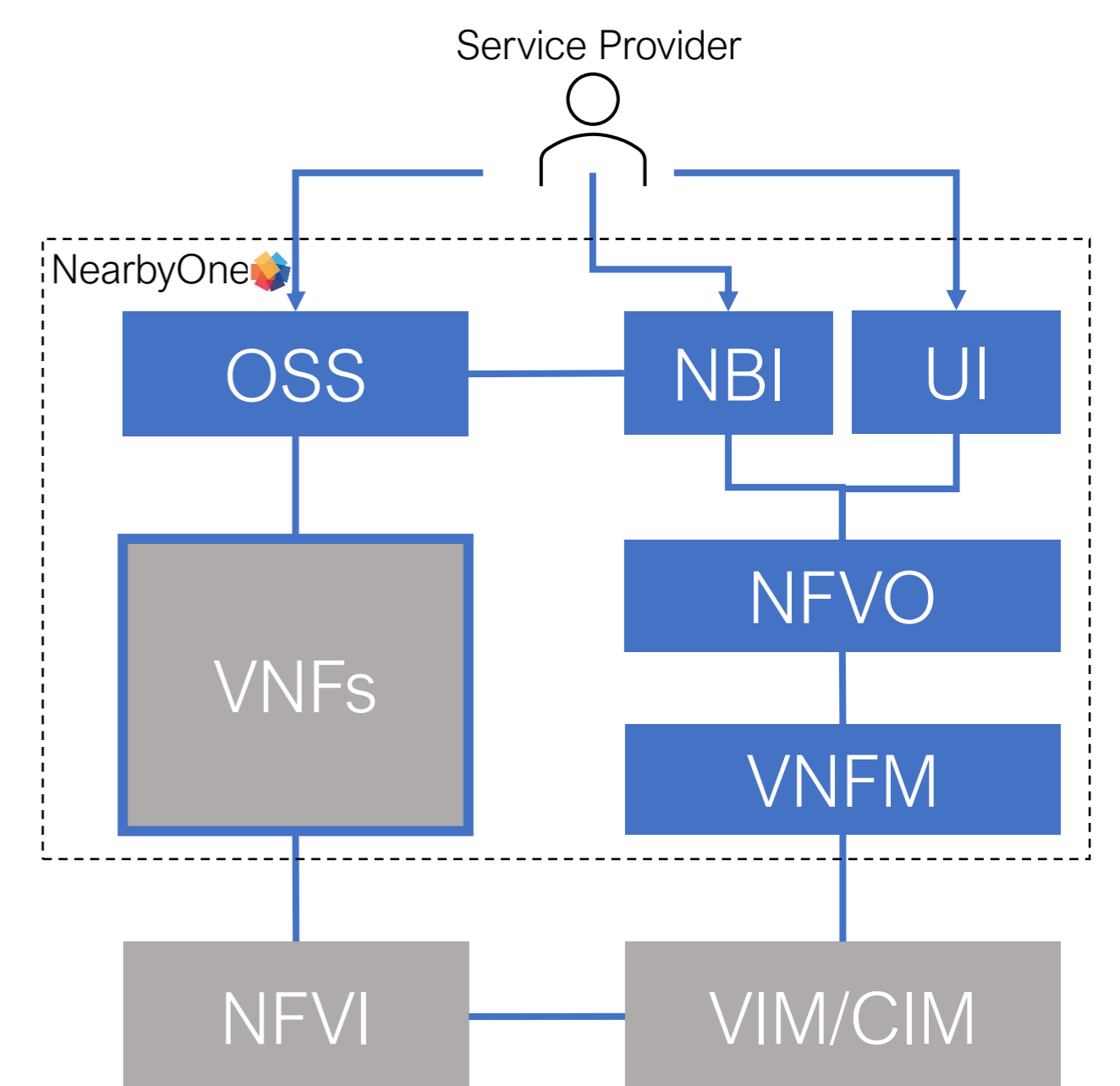


Integrating OpenCAPIF with NearbyOne, either directly or externally, enhances NearbyOne's functionality by allowing it to act as a consumer while the Network serves as the producer, thereby enabling the use of CAMARA APIs.



Integrating OpenSlice with NearbyOne as an OSS for managing network slices enhances operational efficiency and automation, providing a unified and effective solution for network slice management.

ETSI Network Functions Virtualisation (NFV)



NearbyOne adheres to the ETSI NFV architecture, overseeing the lifecycle management of both virtualized and containerized applications and network functions.